SITE OBSERVATION REPORT

PROJECT No.: 170381202	**CLIENT:** 250 Seaport District, LLC c/o The Howard Hughes Corporation	**DATE:**	Thursday, March 30, 2023
PROJECT: 250 Water Street		**WEATHER:**	Overcast/Sunny, 39 – 54 ˚F Wind: E @ 0 – 4.5 mph
LOCATION: New York, NY		**TIME:**	6:00 am – 3:00 pm
BCP SITE ID: C231127		**MONITOR**	Caroline Devin

EQUIPMENT:
CME75 Truck-Mounted Drill Rig
CME75 Track-Mounted Drill Rig
Geoprobe Direct-Push Drill Rig
Jerome J505
RKI GX-6000 Photoionization Detector
Aeroqual ASQ1 Particulate and VOC Monitors

PRESENT AT SITE: **Day 139**
Langan (Environmental) Caroline Devin, Maitland Robinson
Suffolk Construction (General Contractor) Anthony Galu
East Coast Drilling (Foundation Contractor)
Craig Geotechnical Drilling Co., Inc. (Geotechnical Drilling Contractor) Sean Cleary, Keith Parent, Matthew Michelotti, Bryan Gregor
New York State Department of Environmental Conservation (NYSDEC) Rafi Alam
Lakewood Environmental Services Corp. (Lakewood) (Environmental Drilling Contractor) Michael Kolasinski

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No C231127).

Site Activities

- Craig Geotechnical Drilling Co., Inc. (Craig) used a CME75 truck-mounted drill rig to continue advancement of one geotechnical boring along the western boundary of the site (Beekman Street) and to begin advancement of one geotechnical boring along the southern boundary of the site (Water Street). The geotechnical borings were advanced using mud-rotary drilling techniques to about 160 feet and 140 feet below grade surface (bgs), respectively, which was the apparent bedrock depth based on observations from Craig.
    - Drilling spoils were containerized in sealed and labeled United Nations/Department of Transportation (UN/DOT)-approved drums, which were staged in the northern part of the site for future sampling and off-site disposal at a later date.
- Craig used a CME75 track-mounted drill rig to advance one geotechnical soil boring along the southern boundary of the site (Water Street). The geotechnical boring was advanced to about 124 feet bgs, which was the apparent bedrock depth based on observations from Craig, using mud-rotary drilling techniques.
    - Drilling spoils were containerized in a sealed and labeled UN/DOT-approved drum, which was staged in the northern part of the site for future sampling and off-site disposal at a later date.
- Lakewood used a Geoprobe® direct-push drill rig with 4-foot-long Macro-Core® samplers to advance seven soil borings to determine the extents of previously identified hazardous lead-impacted soil/fill and to facilitate off-site disposal of soil/fill in the western part of the site (towards Beekman Street). Langan observed and documented the work, screened the soil samples for environmental impacts, and collected soil samples:
    - Soil borings **WC03A_N2** and **WC03A_N3** were advanced to a depth of about 8 feet bgs. Material was screened for odors, staining, organic vapors using a photoionization detector (PID) and mercury vapor using the handheld Jerome® J505 unit. No evidence of odors, staining, or instrumental evidence of contamination was recorded.

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- Soil borings **WC03A_N4**, **WC03A_N5**, **WC03A_NE2B**, **WC03A_NE3**, and **WC03A_NE3A** were advanced to a depth of about 16 feet bgs. Material was screened for odors, staining, organic vapors using a PID and mercury vapor using the handheld Jerome® J505 unit. No evidence of odors, staining, or instrumental evidence of contamination was recorded.

Material Tracking

- No material was exported from the site.
- No material was imported to the site.

Material Import Summary

Facility Name Location Type of Material	Stone Industries, Inc. Haledon, NJ 1.5/2.5-inch Virgin Stone		Stone Industries, Inc. Haledon, NJ 0.75-inch Virgin Stone		Impact Reuse & Recovery Center or Impact Materials Jersey City, Lyndhurst/Jersey City, NJ 1.5-inch Clean Bluestone		Impact Reuse & Recovery Center, Lyndhurst, NJ General Fill	
Quantities	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)	No. of Loads	Approx. Volume (Tons)
Today	0	0	0	0	0	0	0	0
Project Total	8	184.42	0	0	15	339.65	336	8,216.79
NYSDEC Approved:	1,800 tons*				720 tons*		19,500 tons*	

*0.75-inch, 1.5-inch, and 2.5-inch virgin stone from the Stone Industries, Inc. facility and 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility were approved for import of 1,000 cubic yards (CY) and 400 CY, respectively. Assuming a conversion factor of 1.8, each quantity was converted to tons in order to accurately compare with import weight tickets. General fill from the IRRC facility was approved for import of 13,000 CY and a conversion factor of 1.5 is applied.

Material Export Summary (1 of 2)

Facility Name Location Type of Material	Allocco Recycling Brooklyn, NY Construction & Demolition (C&D) Debris		IRRC Lyndhurst, NJ Construction & Demolition (C&D) Debris		Clean Earth of North Jersey Kearny, NJ Hazardous Lead-Impacted Soil/Fill		Clean Earth of North Jersey Kearny, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0	0	0
Project Total	5	85	42	840	95	1,900	216	4,320

Material Export Summary (2 of 2)

Facility Name Location Type of Material	Middlesex County Landfill East Brunswick, NJ Non-hazardous Soil/Fill		Bayshore Soil Management Keasbey, NJ Petroleum-Impacted Soil/Fill		Clean Earth of Carteret, NJ Carteret, NJ Non-hazardous Soil/Fill	
Quantities	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)	No. of Loads	Approx. Volume (CY)
Today	0	0	0	0	0	0
Project Total	261	5,220	267	5,340	66	1,320

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Sampling

- Langan collected two grab soil samples for laboratory analysis of total and toxicity characteristic leaching procedure (TCLP) lead:
  - WC03A_N4_4-2
  - WC03A_NE3_4-2
- An additional 32 grab soil samples were collected and placed on hold with the laboratory for potential analysis of total and TCLP lead, pending receipt of the initial laboratory report.
- Samples were relinquished to Alpha Analytical Inc., an Environmental Laboratory Accredited Program (ELAP)-certified laboratory under standard chain-of-custody protocols.

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CAMP Activities

Langan performed air monitoring at the perimeter of the site and across Beekman and Water Streets at eight total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor, VOCs, or PM10 that approached or exceeded the action levels established by the CAMP (1.00 µg/m^3, 5.0 parts per million [ppm], and 0.100 mg/m^3 respectively).

Background Concentrations

Prior to implementation of ground-intrusive work, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.03 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations

. **Daily Average Concentrations**

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.005	0.0	0.01
PM-2	0.003	0.0	0.01
PM-3	0.003	0.0	0.01
PM-4	0.002	0.0	0.00
PM-5	0.002	0.0	0.00
PM-6	0.003	0.0	0.00
WZ-1	0.002	0.0	0.01
WZ-2	0.004	0.0	0.01

Maximum 15-Minute-Average Concentrations

Station ID	Particulate (mg/m^3)	Organic Vapor (ppm)	Mercury Vapor (µg/m^3)
PM-1	0.012	0.0	0.02
PM-2	0.005	0.0	0.03
PM-3	0.003	0.0	0.03
PM-4	0.003	0.0	0.02
PM-5	0.002	0.0	0.05
PM-6	0.003	0.0	0.05
WZ-1	0.002	0.0	0.02
WZ-2	0.006	0.0	0.02

●mg/m^3 = milligrams per cubic meter ●ppm = parts per million ●µg/m^3 = micrograms per cubic meter

Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m^3 to 0.07 µg/m^3.

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- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. Instantaneous VOC concentrations were not detected above background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the southern sidewalk of Water Street from 7:36am to 1:33pm during advancement of geotechnical soil borings in the southern part of the site.
- CAMP station WZ-2 was relocated to the western sidewalk of Beekman Street from 7:14am to 1:24pm during advancement of geotechnical and environmental soil borings in the western part of the site.

Prior to CAMP Shutdown

Prior to discontinuing CAMP at the conclusion of ground-intrusive activities, VOC and mercury vapor concentrations were confirmed to return to background conditions at each perimeter station using the handheld PID and handheld Jerome® J505 mercury vapor analyzer. CAMP stations were discontinued sequentially between 1:24pm and 1:47pm at the conclusion of ground-intrusive activities.

- Background concentrations of mercury vapor at each CAMP station were recorded at 0.00 to 0.02 µg/m^3.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Anticipated Activities

- Craig will continue advancing geotechnical borings along the perimeter of the site.

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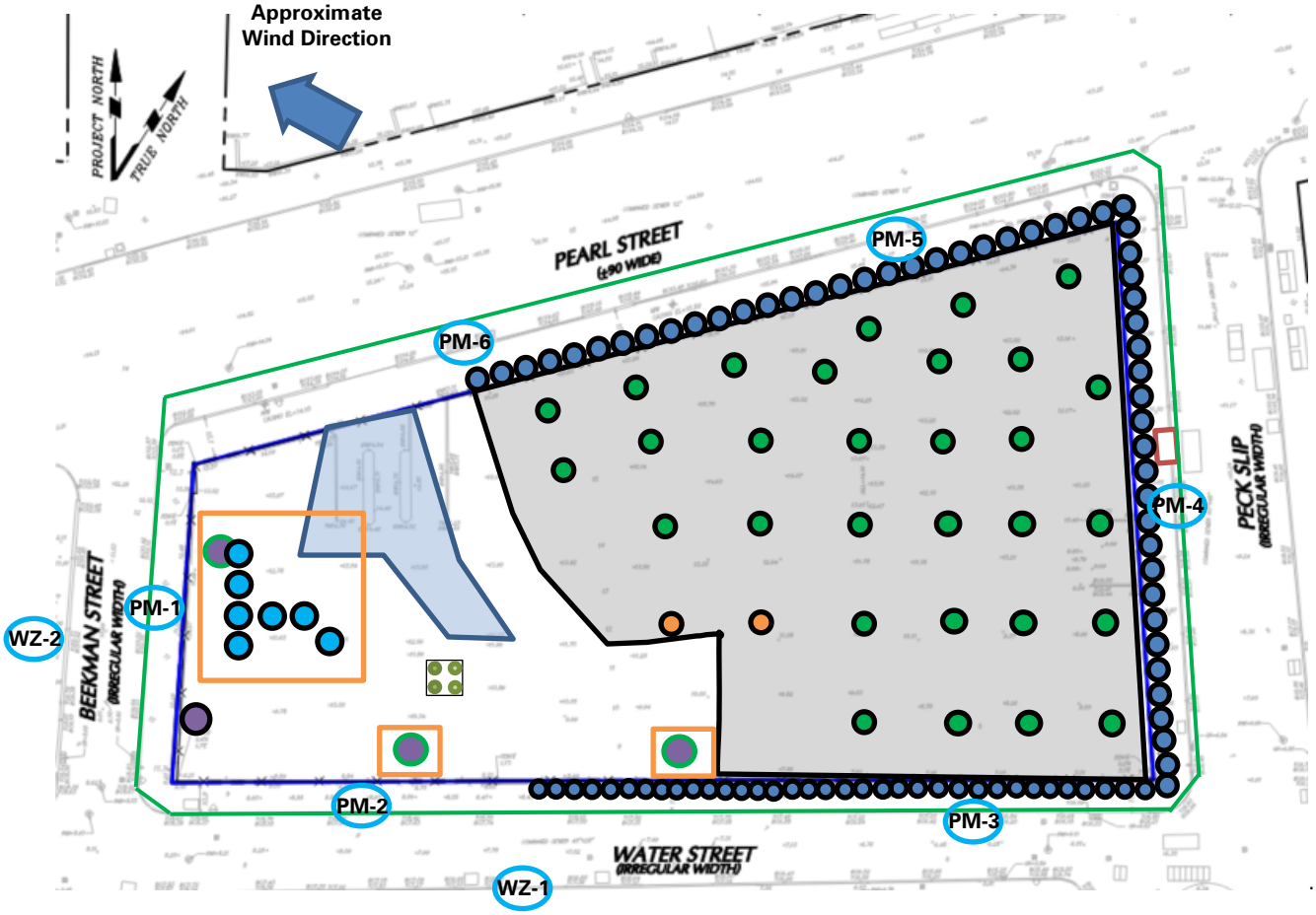
Site Map



Legend:

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of Geotechnical Boring Completed Today
- Approximate Location of Geotechnical Boring Completed Previously
- Approximate Location of 55-gallon drum
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Previous Excavation Area
- Approximate Location of Documentation Sample
- Approximate Location of Previously Collected Endpoint Sample
- Approximate Location of Soil Boring Completed Today

Notes:

1) Locations of air monitoring stations are approximate.

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Select Site Photographs:

Photo 1: Craig advancing a geotechnical boring in the northwestern part of the site (facing northeast)

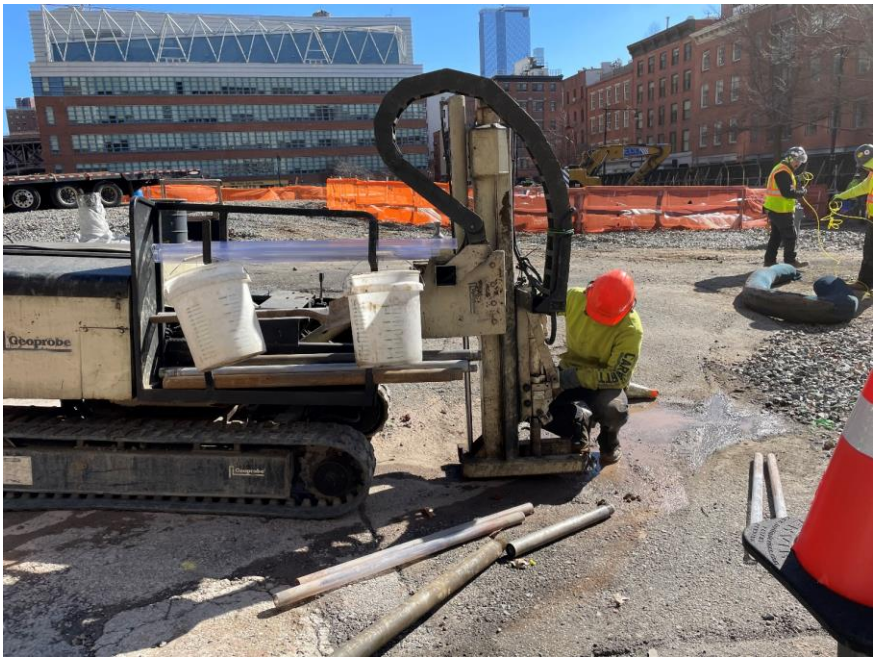

Photo 2: Lakewood advancing a soil boring in the western part of the site (facing east)

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